Instructional Systems Design Webinar Transcript
June 29, 2011

Moderator/Jodi:

Slide 1   Welcome to the Virtual Training Center. This is Jodi Traversaro
                 with the Statewide Learning and Performance Management
                 function for the Department of Personnel Administration. Our
                 presentation today will be Instructional Systems Design: Linking
                 Training to Performance. Our presenters are Joan Strohauer,
                 Education Programs Consultant at the Department of Personnel
                 Administration, and TS Hamilton, Training Consultant at CalSTRS.

Slide 2   Before we start, a few tips on using Live Meeting that will make the
                 session more interactive. If you look at the top right corner of your
                 screen, you will see a small green button next to the word
                 feedback. If you will click on the dropdown menu, you will see how
                 to give feedback to us. Feedback, red - need help, blue – can't
                 hear, yellow – slow down, purple – I have a question. A second
                 button, three white pages, to the left of the feedback button, you
                 can actually click and you can download copies of the PowerPoint
                 presentation, as well as, a resources page to use after the webinar.
                 The third item I wanted to point out is the microphone. You can
                 mute and unmute. It's really important that you mute your
                 microphone. We also have a question and answer button. If you
                 have a question, click on the Q & A. You can write in your question
                 and it helps if you'll give your department, as we want this to be as

specific as we can in answering your question. And as a reminder, the session is being recorded. Now, meet the presenters.

Slide 3　　　　　Joan Strohauer is currently an Education Programs Consultant with the California Department of Personnel Administration. In this capacity, she oversees the California Virtual Training Center. Prior to joining DPA, Ms. Strohauer worked for six years at the Department of Education as an Education Programs Consultant in Charter Schools. She was also a training manager in the Personnel Division.

TS Hamilton is a well-rounded trainer with a solid background in Technology Services who currently serves as the Training Liaison for Enterprise Initiatives and Technology at CalSTRS. His initial foray into the training world came as a security forces member of the U.S. Air Force. TS was tasked with training and testing interesting the peacekeeping and public safety abilities of airmen who were new to his unit. Upon separating from the Air Force, TS worked in the private sector aiding multiple businesses with their on boarding processes and on-the-job training programs. With that, I'd like to turn the presentation over to Joan Strohauer and thank you so much for attending this webinar.

Presenter/Joan:　　Welcome to Instructional Systems Design: Linking Training to Performance. This webinar will provide a high-level overview of the

Instructional Systems Design process. It is geared to those new to the training field or to subject matter experts, who are asked to deliver or develop training as part of their job.

Slide 4:   Why this webinar?

Just a little bit of background. As we all know, the state faces critical challenges. We have massive retirements coming, possible layoffs, a dire financial situations, employees being asked to do more with less. As a result, the State must focus on developing a high performing workforce. While training becomes increasingly important, it is usually one of those first items that might even be cut. The State, and its employees, cannot afford to spend time and money developing and delivering training that is not needed, does not deliver results, is duplicative of what others are offering or when there are less expensive and more effective ways to effect change. While there are many experienced trainers in the State, we are finding that many of them are among those who may be retiring. There are many new professionals and they may need tools and skills to ensure high quality, cost-effective, results-oriented training. This is the first in a series of webinars being offered by Statewide Learning and Performance Management that we hope new trainers will attend and will help them design more effective materials.

Slide 5:   Objectives

The successful learner will be able to:

- Explain the Instructional System Design (ISD) process and why it is critical to effective training design
- Explain ISD's contributions to organizational performance
- Identify the 5 phases of what is referred to as the "ADDIE model" and how they inter-relate
- Identify sample deliverables for each phase

Slide 6:   How familiar are you with ISD?

Presenter/Joan: But before we get started, one of the things we'd like to do is we'd like to take a poll and find out a little bit about who is here and what your background is with ISD. So, would you go ahead and let us know. Oh I see people are answering already. Well, TS, it looks like most people have a little bit of background on ISD. A couple are very familiar with it, and some are saying, what is this thing? So, that's important information for us to have. Okay, with that TS can you tell us just what is Instructional Systems Design?

Slide 7:   What is Instructional System Design (ISD)?

Presenter/TS: Yes, looks like we need to cover that for those individuals in that green section there. So, Instructional Systems Design is a systems approach to training. It is the achievement of established goals through the systematic design, development, evaluation of training. It applies a step-by-step system for the analysis of learner needs, the design and development of training materials and the evaluation of the effectiveness of the training intervention.

■ It is the most widely used methodology for developing new training programs. One way to think about ISD is as a roadmap before undertaking any journey. It's a good idea to have a destination in mind. In training, the destination or end result might be to change a behavior, improve a skill or impart knowledge that can be applied in a specific work situation. In this webinar we'll look at the classic instructional design process, which is equally applicable to classroom or virtual training using a structured design process helps you to identify the desired destination and in that way be more sure to reach it. It is not the technology, but design process, that will get you there.

Slide 8:   Benefits of using ISD?

Presenter/TS: Some benefits of using ISD:

■ Training is relevant, it becomes performance driven, learner oriented

■ The right learners get the right training at the right time

■ Learners learn new skills and knowledge during training

■ Learners apply newly acquired skills and knowledge in the workplace

The end result being improved individual and organizational performance.

Slide 9:   And I think we have a nice little quote here, which sort of sums all of that up. Marc Rosenberg, being the past president of the International Society for Performance Improvement, states… "Remember, training is not what is ultimately important… performance is." I think often times we get caught up in training, but remember it's all about performance.

Slide 10:   Instruction System Design: ADDIE Model

So, with that, we mentioned ADDIE a little bit earlier. A lot of people say great, another acronym, but ADDIE is encompassed in ISD or Instructional Systems Design, which evolved from post World War II research in the U.S. Department of Defense to find a more effective and manageable way to create effective training programs. Being prior Air Force, I know all about Department of Defense and then experienced this first hand.

Slide 11:   The Analysis Phase

Research from this led to the development of more than 100 different ISD Models; some simplistic and some very comprehensive, but almost all are based on the generic ADDIE Model, which stands for analyze, design, develop, implement and evaluate.

Slide 12:   Analysis Phase

Very briefly, the analysis phase is the investigation phase. During the analysis phase, the designer develops a clear understanding of the performance issues. The design phase involves developing the training blueprint. This involves developing learning objectives,

assessment instruments and content outline. In the development phase, we fill in the details by laying out a scripted lesson plan, create the learning materials, find ways to engage the learners. In the delivery phase, the training is rolled out. Very simple. There are many way to present training. It can be classroom, online or the webinar, as is today. And last but not least, we have the evaluation or the results phase where the effectiveness of the training is determined. Ideally, each of these phases contain activities or steps that should be completed before moving on to the next phase, step-by-step. In the real world, you find the phases overlap. Undoubtedly, ideas will come up about design and development while working on the analysis. You can jot a note down. Don't lose the idea. You can always go back to it, but we recommend that you do not skip steps entirely. So, let's move into the analysis phase with Joan.

Presenter/Joan: Okay, the first area that we will look at is analysis. What we find is that the analysis phase is often considered the most important step in the ISD process. It is sometimes overlooked. Too often we might leap into designing or contracting for a course because we make an assumption about what is needed, or were told by someone that it was needed, or maybe we just see that everybody else was offering it. If training needs are not identified correctly, the training itself may be in effective and we may find the training was not even needed and another intervention was. A very common

example might be team building or communication courses. Rather than doing a thorough needs analysis, we might jump to the conclusion that training is the answer, grab a course catalogue, pick a course, and set up the class. Then once the course is over, there's no change in behavior. So, what happens? We blame the course. And it might have been very well designed and an excellent course, but not the right course for these people at this time. So, what we really want to do in the analysis phase is determine what is the root cause of the ineffective whatever it might be and perhaps it was delegation instead of team building or so forth and people just might not have been clear on their responsibilities. So, instead of a training course what people might have needed is just clarification of their roles and responsibilities.

Slide 13:   Key Skill

One of the key skills in terms of analysis, and I would also like to say throughout the entire Instructional Systems Design process, is asking questions. Not just asking questions, but asking the right questions.

Slide 14:   Analysis Phase – Problem Analysis

There are actually four parts to the analysis phase or parts of analysis we should be doing and each with some specific questions. First is what is referred to as problem analysis. What is the problem, issue, change or maybe it's even an opportunity

actually that we need to look at? And here we want to take a look at what is the performance discrepancy. What is the difference between desired performance and actual performance?

Performance Analysis. Next we want to take a look at performance analysis. And that basically asks - is it a training problem or is training the solution? It may or may not be. And it might be some other type of issue. So, we always want to make sure before we jump into setting up a training class, designing or developing one that we make sure that it's really the correct solution.

Leaner Analysis. We also want to take a look at learner analysis. Who needs to be trained?

Task/Competency Analysis. And the fourth analysis is what we call task or competency analysis, and that includes what skills and knowledge are needed to perform the job. So, let's take a look at each one of these very quickly.

Slide 15:   Problem Analysis
And when we get into problem analysis we ask- what is the performance discrepancy? And many times Robert Mager, who has written extensively on this topic, says he really doesn't like to call it a problem. He likes to call it a discrepancy because there is a difference between the desired and actual, but maybe it isn't a

problem. Maybe it's an opportunity. Maybe it's a new regulation.

Maybe it's something coming down the pipe. So, he prefers to say

a discrepancy and what is the change you want to make? The next

question you want to ask in this area is - is this discrepancy

important? Many so-called problems maybe just something that

bothers the manager and it really is not a problem; we don't want to

spend the time and money. So, a question we want to ask is- is it

worth it?

Slide 16:   Performance Analysis

The next analysis is what we call performance analysis. And we

ask- is it a training problem? And when we get to this phase there's

a book I want to mention, and that is one of the classics, and it's

Robert Mager's Analyzing Performance Problems: You Really Otta

Want To". And in that book, he says there are two questions you

may want to ask in order to determine if it's a training problem. He

says, first, "Is it a problem of skill?" If so, look at training, although

training may not be the only answer. You may want refresher,

feedback, on-the-job training or maybe you just need to simplify the

job. However, another consideration is: "Is it a problem of will?"

And people know how to perform, but they don't want to for some

reason. Then we want to look at performance management and

what is rewarded. One of the questions he says to ask is "Is

performance punished?" And people think, why would I punish

performance? But we find it happening all the time. What do we

tell people? They are empowered, and then when they act on their own, sometimes they get shot down. So, they got punished for doing what we said we wanted. Another thing to ask is "Is non-performance rewarded?" Why would we begin to reward non-performance? And yet, we might find it happening all of the time. A person doesn't delegate, and what they get instead is a lot of power. So, to them it's very rewarding. The other question he says to ask is "Does it matter?" And sometimes when people perform and do a great job they hear nothing. And other times they perform and they make mistakes and still hear nothing. So what Mager says, "if it matters, make it matter."

Slide 17:   Learner Analysis: Who needs to be trained?
The third analysis is what we call Leaner analysis - who needs to be trained. We have listed a number of questions here that you might ask. For instance, how many people need the training? That will certainly impact your delivery method, because can you fit them all in a room? Are they diverse? Are they all over the state? Is the training mandatory or self-selecting? And many times people resent going to mandatory training, so you might want to have a heads-up about what their attitude might be when they walk in the room or log onto the webinar. Also, we want to take a look at job classifications. How long have them been in their positions? Are these very experienced people? Are people brand new? What past related training do they have with the topic? Also, have

participants expressed a preference for a specific kind of training? What we mean by this is with today's age of the millennials, many are into social media. They like bite-sized training. They want something quick, fast, somewhat like Twitter and even YouTube. So, we also want to take a look at their educational levels. This really hit home with me when I was working at Defense Logistics Agency. We were teaching a leadership program, but we included many warehouse workers in the program. Originally, when I took over the class the text that they gave people was a wonderful book by Kouzes and Posner called Credibility. I don't know if any of you have read it, but it's a great book, but it's about two-inches thick and very academic. It certainly didn't fit for those warehouse workers. We found that they rarely opened it. Instead, the new commander personally selected a wonderful book called Reflections For Managers that had two pages on each key concept that they wanted to cover, such as, make your word gold. And then they would have an example of it. And participants found it so valuable that they kept it by their desk. There was just an indicator to me, we have to be a little bit sensitive to who is in the room. And do they have any learning preferences? Are they auditory, visual, kinesthetic, and of course, are there any special needs, such as ADA.

Slide 18:   Task Analysis: What do the learners need to learn?

The fourth type of analysis that we need to do is to determine what the learners need to learn, and this is especially relevant in technical jobs. The task analysis involves breaking regular jobs into tasks and then determining what knowledge, skills and behaviors are needed for successful job performance. This in turn becomes the course content. You might want to take a look at the job of a trainer. Some of our tasks might be to design courses, handle logistics, and facilitate meetings. Some of the knowledges and skills might be knowledge of adult leaner principles, how to develop a lesson plan, how to use the laptop and projector. The behaviors, which are often referred to as the soft skills, are often overlooked but these might also include the ability to communicate and have a customer focus. Many times when you are doing the task analysis you'll find it very helpful to work with subject matter experts.

Slide 19:   Analysis Phase: How do you collect the data?

In terms of the analysis phase, a couple of things you want to say is how do I collect the data? There are many methods and you can find great research on this, but you might want to take a look at surveys, which is the most common. There are many resources on them. They can be low cost, such as Survey Monkey, and they can get a lot of information quickly. However, the cons are a frequently low-response rate, not sure how people interpret the questions, and you don't have any time or place to delve in deeper. Interviews are

another way to collect data. They can be done in person or on the phone; certainly they should be private. And the advantages are you can get a lot of information, ask follow-up questions, you can be more flexible, and you can read their non-verbals. The cons are they are time-consuming, expensive, and sometimes it's hard to quantify the results. The same is very similar for focus groups, which are an interactive small group of three to 12 people who have a facilitator who asks questions. They might ask questions about what people see as the problem. How would they define it? What is the performance discrepancy? They might ask questions in terms of the task analysis. So, there's many ways you could use the focus group. Another way to collect data is direct observation. Go in and watch people perform, and you can actually see what they're doing. However, this could be a little intimidating to the people being watched. And then there's always indirect observation, such as work samples.

Slide 20: Analysis Phase: Sources of Information
To give you an idea of what may be some of the issues involved in the performance discrepancy. Sources of information-- you have high performers in the job, great people to ask. You have supervisors and managers. They may have a different perspective. Technical experts, especially important when you are doing a task analysis. And how about new employees? They have a fresh look at things. And never forget that our HR professionals are our

partners and that we always want to be involving them when appropriate. Sometimes we forget to ask our customers. They have great input, especially in identifying any performance discrepancies. And then, of course, we mentioned that there are some relevant documents.

Slide 21:   Analysis Phase: Tips on Collecting Data

In the analysis phase when you're collecting data – try to use existing information. Some instructional systems design is expensive, so tap into what already exists. Collect only information you plan to use. Many times we've seen people send out surveys and they say, well, while I'm asking this, I think I'll also ask about morale, motivation, and a few other things. And concentrate your efforts on the most important areas and the most important sources, because it can take time. And use the simplest technique that will work. If you think that random surveys with a couple of interviews might work, great. That would be a fine way to do it. So, we basically say do what you can within the constraints of time and resources.

Slide 22:   Analysis Phase: The End

At the end of the analysis phase you will have for your report as we say or deliverable, have a very clear picture of the performance issue to be resolved, be able to determine if training is the best solution or part of the solution, know who needs to be trained and

have a good idea of the objectives and content that will need to be covered.

Slide 23:   Poll

Let's take a quick poll and see how you're doing and if you have some input for us. The analysis phase is not needed if everyone is the same job and gets the same training. Will you respond? Well TS I think they got it.

Presenter/TS: I don't think they're going to be tricked by this one.

Presenter/Joan: They're not going to be tricked at all. Okay. Training needs vary even if everyone has the same job. No, training needs to be individualized. You need to know your audience. Sometimes people say, "let's just give everybody the same training. That's the way we've always done it." And no, we want to be very careful. The more individualized, the more appropriate. So, that's great. And TS I think that we should now move on to the design phase.

Slide 24/25:

Presenter/TS: The Design Phase

I think you set us up very well for the design phase after going through all of the analysis portion. So, some items to mention with the design phase. Again, as I mentioned before, we're really setting up a blueprint that we can use to guide the development of

the training. And this phase really consists of four majors steps.

And that's…

- Writing the learning objectives

- Determining the evaluation strategy

- Determining the content outline

- Developing the learning strategy

So, let's break down each one of these and we'll start with learning

objectives.

Slide 26:   Design Phase: What is a learning objective?

So, there's been a great deal of new, more comprehensive work on

writing objectives that link to the levels of evaluation. But for our

purposes today we're going to use the classic definition from

Robert Mager's book, 'Writing Instructional Objectives'. He states,

a learning objective tells in precise terms what the learner will be

able to do by the end of the session. It may also describe the

standard by which the success will be measured, the 'how well' if

you will. And again, the conditions under which it will be achieved.

So, here are two examples…

"Given five scenarios requiring conflict resolution communication,

learners will demonstrate their ability to follow a communication

model to reduce emotion using a new style of communication." So,

that's first one.

And then the second one, "Given 10 job applications and minimum qualifications for a position, learners be able to screen the job applications against the MQs with 100% accuracy." So, fairly straight-forward. And those really come out of, again, the analysis. Joan talked about tasks, and they have a knack for going into objectives.

Slide 27:   Design Phase: When Writing Objectives

When writing objectives there's some items that you want to keep in mind. So, effective objectives have very specific, observable verbs, such as to identify, explain, perform, write and so on. But you do not have to know what people think, feel, know or understand. And with learning objectives, they're focused on the learner-- what the learner will be able to do, not what the instructor is going to cover. We often times see objectives written into the terms of I will discuss 'x' topics. Again, instead they need to focus on the outcomes of the training to the learner.

Slide 28:   Where Do Objectives Come From?

So, where the objectives come from? We do not pull them out of thin air like magicians, ta-da! Where else do they come from, but from the job itself. What performance is required on-the-job?

Slide 29:   Poll

Although we could spend one to two hours on objectives, let's instead use a poll to see your understanding of what was very briefly covered.

Which is the more effective learning objective?

A. I will teach how to create a customer account on our computer system.

B. Given ten customer applications, learners will create ten different customer accounts using our computer system with 100% accuracy."

So, we have two here, and…

Presenter/Joan: I think they got it TS.

Presenter/TS: I think they do. So yes, so it looks like everybody is selecting B. So, again, laying it out there, given ten customer applications. We're given the conditions. Learners will create ten different customer accounts, so we're focusing on the learners. We've even, identified our outcome too. We hope to achieve 100% accuracy. So, it looks like everybody is catching on really well. Let's try another point to see if we can really drive this home.

Slide 30:   Poll

Which is the more effective learning objective?

The learner will know how to fill out a Standard Form 182, Request for Training.

Given course information and nominee data, the learner will fill out a Standard From 182 with no errors.

Presenter/TS: I'm very impressed.

Presenter/Joan: I see someone backed out. Okay, they changed their mind.

Presenter/TS: Free will, it's a lovely thing. So, again it lays out the conditions. So, given course information and nominee data, the learners, so again we focus on the learner, and then our outcomes, they'll fill out a standard form 'x', whatever form that might be with no errors. So, very well done on those polls.

Presenter/Joan: The word 'know' is one you want to be very careful about, because how do we know that they know? And so when you use one of the verbs that TS mentioned earlier, such as they "will write, they will identify," they show us in some way what they know.

Presenter/TS: Yes, and the same thing I'd say with "understand" as well. "Understand" is so difficult to wrap around.

Slide 31:   Design Phase: Develop an Evaluation Strategy

So, continuing on with the design phase. The second part of that is developing an evaluation strategy. And the eval strategy is the means by which you find out if the objectives have been met. Your strategy should measure the "does what". If they objective is to learn a body of knowledge, a pre and post test might actually be used. In the incidence of giving a presentation or using a welder, you would have a performance test. Make a presentation. Weld to some specification. If the objective is to fill out a form, you have them fill out the form. If the evaluation strategy, to the extent possible, ties back to what is expected on the job. So, it's important that it's not enough just to talk about a subject to the extent possible. Again, the learner has to do it. A frequent misconception is "I said it, so they should know it." Right? Wrong! Most people do not even begin to learn something until they say it and they do themselves. And I find this very often in technology training. And just because they say it and do it in class, does not mean they can say it and do it back on the job. So, at the very start you want to determine your evaluation strategy.

Slide 32:   Design Phase: Develop the Content Outline

The third item to this is developing the content outline. So, we have objectives and an evaluation strategy. We want to develop the content outline. And where does the content come from? Well, it's that task analysis that we mentioned previously. So, we want to identify key content areas. So, we want to get organized. You may

need to sequence by simple to complex or sequential steps. What else? Chronological. Familiar to unfamiliar. Building blocks. High impact first. All sorts of different ways you can cut that. You want to check your content outline. Make sure you're enabling the objectives. And then think about if the learner is going to get each segment. In the case of this webinar, you'll see we're using polls as summary activities for each of the sections.

Slide 33:   Design Phase: Determining the Learning Strategy.
And so, the last piece to all of this is determining a learning strategy. So, we've had one, two, three, and four-- the fourth one being the learning strategy--the delivery method if you will. And actually this may come earlier. We're launching a Virtual Training Center, so we know from the start that we will be using Live Meeting webinars for instance here. So, you know, some other things to keep in mind. You may have live workshops where learners and trainers are in the room together, same place, same time. Live virtual workshops. Virtual workshops offer many of the same opportunities as traditional workshops for participants to interact with the trainer and one another. Blended learning, one of my favorites. Combination of classroom and web-based. Self-directed e-learning, so people use a computer to learn on their own. Self-paced workbooks; people use a printed workbook to learn on their own. Podcasts; very fun. Brief audio or video programs that learners can listen or watch on a computer on mobile device. And

then classic O-J-T, on-the-job training; people learn a task or job by doing it with the guidance of an experienced person.

Slide 34:   <mark>Poll</mark>

So, let's take another poll just to hammer home the concept. So, classroom training is the most effective delivery training. True or False? Getting some respondents in. Looks like the majority of people are saying 'false'. That's great, and Joan correct me or add onto this please. It goes back to that analysis piece, right? We want to know our audience and how are they really going to want to receive that training?

Presenter/Joan: Absolutely, it is a very effective delivery strategy, but it's not always the most effective. We need to take a look back to that audience analysis as you said TS, and we may want to have a webinar, because there's people all over the state and we can't get them in with travel cuts. So, we have to go with another option.

Presenter/TS: And even here at CalSTRS, we have an investment unit and they're at their desks. They're watching the stocks and very difficult for them to get into the classroom. So, we've had to work with them very closely on how they would like to receive their training.

Slide 35:   Poll

Let's try another poll to see… The analysis and design phases can be time consuming. To meet my agency training needs, it is more efficient to send employees to outside providers. True, False or it all depends? We have a very sharp group today.

Presenter/Joan: Yes, there's a time and place for each isn't there? There was a book once that somebody gave me and it was entitled, 'It All Depends', and I always thought somebody really nailed it when they said, "there's so many different ways of looking at something." But in terms of when to send people out, sometimes it can be an excellent decision because maybe it is a very specialized, I'll say IT type of thing or engineering. And can have someone that is an excellent provider. However, sometimes we want to take a look at internal training. So, it's really we need to take a look at what is most effective is something that is individualized, customized, preferably free, but we don't always have that luxury. So, it's just really an area that we wanted to discuss.

Presenter/TS: Very true Joan, very true. And with that I think we're going to let Joan roll right along with the develop phase.

Presenter/Joan: Before we get into develop I just want to see if there are any questions. I only see one comment. So, let me add what the comment was. It says, behavioral objectives, conditions, behavior and standard in a lesson plan ideally would also include references

for the standards. Absolutely correct. Thank you Ree for adding that point.

Slide 36:   The Development Phase

As we move into the next phase, the development, actually you're going to find that design and development go hand-in-hand. These are topics we can spend three days on alone, and we will be having a webinar on August 18th on designing effective classroom training. So, if this is an area of interest we would recommend to get more thorough information you attend it. But let me give you a brief overview.

Slide 37:   The Development Phase Includes…

When we get into the development phase it's called kind of putting the meat on the bones. In the design phase we have a content outline, but now we want to fill it out. And it keeps taking a look at developing a scripted lesson plan that includes course

- course objectives
- course content
- Instructional methods, media
- Interactive strategies
- evaluation tools (e.g., pre- and post test)

So, these are just some of the things that we want to include. I have to say though, whenever I think of a scripted lesson plan, and I was just getting started in training, I worked with some incredibly

talented, knowledgeable trainers. But as a newbie I wrote out my little lesson plan and made sure it was all there. And they used to tease me. And they used a term; they'd say Joan, why don't you just wing it. Well, when you're new, I don't know about you, now many years later I'm still doing the same thing. Maybe someday I'll be that experienced one. I always like to have my lesson plan, but it provides a number of things. It keeps me on track. It ensures I know exactly where I'm headed, so I know if I get there. And if I get sick, someone else can fill-in for me. I can just hand it to them. And also, in the case where there are a number of instructors that teach the same class, it ensures consistency. The other part of developing in the development phase is you want to develop support material. These can be the handouts, the job aids, the checklists. One of the changed I see in training today is in both in terms of technology and saving trees. People are giving more and more links to resources, and that's just a great idea. We'll have some for you at the end of this webinar. Also, as you are developing always keep in mind the principles of adult learning, which we will cover in a moment.

Slide 38:   Also, you want to keep in mind in this phase that you once you get everything together, how to review with peers or subject matter experts. Also, you might want to conduct a pilot session. If you've never taught it before, get people's reactions. With the Virtual

Training Center, we always have dry run. Make any revisions based on the feedback. Then you can finalize your materials.

Slide 39:　　One of the things that we find though is that as we develop we want to keep in mind what people remember. And what I would like you to do as we go through is I would like you to jot down the number you think is going to come up. But if we want people to retain the information, there's some things we need to keep in mind. And according to some research, we say people retain…

- 10% of what they read
- 20% of what they hear
- 30% of what they see

Jot down what you think they see. 30%... Is that the number you had? How about of what you see and hear? How much do you think you retain?

- 50% of what they see and hear

It is 50%. And how about of what you say?

- 80% of what they say

They say that the retention is about 80% and the key here is the people, in terms of retention, what do people retain as they do a related activity.

- 90% of what they say as they do a related activity

What this tells us when we're designing training, is the more that we can get people involved in the actual doing, not just listening,

we will increase the retention rate, which will increase the chances that they will use it back on the job.

Slide 40:   Other Research Findings

Also some other research findings, always keep in mind when you're designing your training that people learn differently. They have preferences. Are they auditory? Are they visual? Are they kinesthetic? So, lecture can work for some. Others need visuals, such as we're seeing here. The kinesthetics like to put their hands on things and do things. So, always keep in mind as you design to try to the extent you can to address all different learning styles. Also, we find that interaction, as we have said, enhances learning because it gets us back to that 90%. And auditory information tends to fade more rapidly than visual. So, one of the things you want to keep in mind is to reinforce both. So, you might want to try to use multi-channel communication.

Slide 41:   Adult Learning Theory

One of the other things we find is adult learning theory. This, again, could be a course in and of itself. It is based on the work of Malcolm Knowles who wrote The Adult Learner: A Neglected Species a number of years ago. I find that people still cite him and use these ideas. Keep in mind as you design your courses that adults are autonomous and self-directed. They want to have some say in what they want to learn. They have life experience and

knowledge. They'd like to share it. Also, they tend to be goal-oriented and are relevancy-oriented. So, although some models and information might be useful, really they want to say how is this going to work for me back on the job? How is it going to make my job easier for me help me be more productive. So, they're very practical. And so they want to know what will work? And very importantly is also keep in mind the adults always want respect. The reason I added this one, I should say kept it in there, is one time I attended a training and the instructor went around the room and had each person read a paragraph of the manual. And as they went further around the room, you could just see the eyeballs rolling. It was-- do we really need to be treated like this. So, what we talk about is engagement is really the key. There's so many ways to engage people.

Slide 42:   Sample Instructional Methods to Engage Learners
And again, as I say, this could be a course in and of itself. But let's take a look at just a few things that you're probably very familiar with, which in the classroom setting you can have:

- Group discussion
- Role Plays
- Case studies
- Demonstration
- Group Projects
- Reading assignments

■ In-basket exercises

What we'll find here is that, again, we could have a class on just this, and we will be covering it in that August 18th webinar in much greater depth, but the newer type of challenge is how do you get engagement in online classes? Sometimes you can have group discussions depending upon what capabilities, such as Live Meeting has, or Go To Meeting of WebEx or whatever one you're using. In this case, we are not having a phone line. Sometimes you can, and this is because of costs. We can have the polls to get some interaction and ideas from people. Certainly, question and answers and we want to encourage you to use that question and answer box. And many of them also have quizzes and tests that can be involved.

Moderator/Jodi: Joan and TS. We have a question from Michael I'd like to share with you. The question is and it goes back to performance analysis. He says, in my prior job we used performance consulting worksheets. Does the State have such a form?

Presenter/Joan: It does not have a specific form, but there are some that many of us trainers use. The one I'm thinking of specifically, in consulting, Johnson & Johnson book on performance consulting had a number of forms in there when you're consulting. And the one that I always enjoy is the form from Robert Mager's book, Analyzing Performance Problems, so that when I go through and people start

telling me what the issues are I start saying okay is it a problem of

skill? Is it a problem of will? What's the performance discrepancy?

And I start asking his questions. So, that is, those are the ones I

know of. TS, do you have any you'd like to add?

Presenter/TS: Again, I'd agree with you. Nothing that I've seen sort of statewide,

but we have our performance management unit and they're really

working feverishly as all these questions arise. And I think they're

currently putting something together that we can utilize in our

organization at least.

Presenter/Joan: And I'm sure you'd be willing to share.

Presenter/TS: Of course!

Slide 43: Tips For Developing Training Materials

Presenter/Joan: Okay, a couple of tips for developing training materials is don't

reinvent the wheel. If you are asked to do a course on something

that's a generic topic, such as customer service, yes, do your

needs analysis so you're very specific about what your department

needs. But we also want to encourage you to contact other trainers

using the Cal Trainers list or list you may have. And many people

are so generous about sharing. Don't start from scratch if you don't

have to. You might want to test a small portion, as we said, the dry

run. Always keep in mind though is it's not about what you know.

It's what about the participant needs. One of the traps we can fall into is our own favorite story, the favorite thing we had to learn. So, we want to say what is the bare minimum that needs to be covered, and someone gave me a 90% rule, and that is just cover the major 90%. Don't worry about all those little exceptions right now or give them a reference where they can find them, because you can get into too much detail and go off on a tangent, but use judgment with that. Also, one of the things that we have found is design and development, there are some time ratios, and TS shared this with me. And I really appreciate it.

Slide 44:   Design/Development - Time Ratios
And in terms of on-the-job training, the average is 35 hours outside of the training to one-hour of actually doing it. For instructor led, the average is 45 hours to one-hour in the classroom. And self-paced instruction averages 70 to one.

Slide 45:   Poll
But what we want to ask you is your thoughts here on what do you think the development time to ratio is for web-based training?

■ 100 to 1

■ 150 to 1

■ 200 to 1

■ 245 to 1

■ 290 to 1

■ 350 to 1

Well, TS we're finally getting some different answers here.

Presenter/TS: And I hope everybody picks up on the fact that all these ratios are higher than even the highest one for the classroom training or traditional training I should say.

Presenter/Joan: And I'm going to tell you the answer that we got from Langview It is 290 to 1. I also read another one last night that was 220 hours to one-hour of online training. So, they're really up there, and that does tell us a lot about the cost of training and for us to consider we need to know what we're getting into and what is the time commitment. Also, in terms of the model, I think it's time to go into the next phase. And TS will you take us…?

Slide 46: The Implement Phase

Presenter/TS: I was glad that this one fell to me. We've been alternating because it's fairly straightforward and that's the implement phase, correct?

Presenter/Joan: Yes.

Presenter/TS: And it's simply delivery, right? This is where you roll out the training. At a minimum, prepare instructors whether they need to know about the audience in the case of a webinar, as in today. We have to make sure that they know some of the basics, how to move

the slides forward and make sure that they're prepared to, of the emotional impact of talking to a screen rather than to live people. I'm still gesturing with my hands, even though you can't see that. If classroom based, prepare the facilities, appropriate room equipment, especially technology equipment. You know Murphy's Law, whatever can happen, will happen, just numerous technology horror stories from doing class preps. We'll cover this topic in much greater depth in the webinar scheduled August 18th, is that correct Joan?

Presenter/Joan: Correct.

Presenter/TS: For the effective classroom training. So, we won't hit on that too much, but implementation is the rolling it out. I hate to see a product put together and not actually implemented. So, fairly straightforward and that allows us to move onto our last phase, the evaluation phase.

Slide 47:   The Evaluation Phase

Presenter/Joan: The evaluation phase, if we've done our homework it all goes back to our instructional objectives and did we meet them. This is an area we said that analyzing was so important, the evaluation phase is also as well. But again, we find that there are a lot of areas that it's costly and people don't many times have as much time to do it. But let's take a look at it.

Slide 48:   Evaluate

We said that asking questions was key, so when we get to the

evaluation phase, just some of the questions we might ask is:

■ How effective was the training?

■ Were the objectives met?

■ Will the content be used back on the job?

■ Did the training change or improve performance?

■ Because of the training, did we save money and/or time?

■ Two leaders in training evaluation

Slide 49:   Two Leaders In Training Evaluation

Two leaders, and I'd like to say greats, in the training evaluation

area are Donald Kirkpatrick, who has this 4-level model of

evaluation and Jack Phillips, who is renowned for his work in the

area of Return on Investment. So, I'd like to take just a quick look

at these two, if we could say greats, and take a look at some of the

things they have to say about evaluation.

Slide 50:   Kirkpatrick's Four Level Model of Evaluation

Kirkpatrick's Four Level Model of Evaluation says that the first level

is reactions – Did participants like the training? Second is learning

– What did the participants learn during the course? The third level

is behavior/performance – Did learners change on-the-job behavior

based on what they learned? Did they do anything back on-the-

job? And the fourth level is results – Did the change in

performance have a positive impact on the organization? Let's just

take a little bit further look at each one of these.

Slide 51: When we take a look at level 1 we say, okay were they satisfied

with the course? Sometimes people refer to this as "Smile Sheets"

because participants sometimes develop a rapport with the trainer

and they don't want to hurt their feelings. They often focus on the

positive, and sometimes don't mention as much about what they

didn't like. These evaluations are typically ones that you fill out as

a questionnaire at the end of the course or perhaps a follow-up with

an electronic survey. They can provide some useful information,

especially about the training program itself is that maybe they can

give you some tips on maybe a video didn't work for them or did

work for them. They really liked it. Maybe you need to spend more

time on a certain topic. Maybe they can recommend an activity.

Maybe too much time, not enough time, so they can really provide

some valuable information. However, the problem with the Level 1

is there's limited values as to finding out about the impact back on

the organization.

Slide 52: Level 2: Learning

Let's take a look at Level 2. What did they learn? And when we

get to this, and how will we know, this is where you want to

measure the achievements of the objectives. This level helps

trainers determine the extent to which learners have changed their attitude, gained new knowledge or new skills. The methods for evaluating typically, and the most common methods are a pre or post test or a performance test so that people can actually, say it was a presentation class; they give a presentation. The limitation on this however, is that you have to have a standard against which to measure. So, we have to say what was the baseline, because we have to find out if they change. Also, it tells us a lot about retention. Well, let's see. They learned it in the class, but it doesn't really tell us if they applied it back on-the-job.

Slide 53:   Level 3: Behavior/Performance

■ Did they use it back on the job?

■ Just because they use it, doesn't mean it improves performance? I taught a time management class one time and everybody said, oh yes, we use to-do lists. That's great, I'm glad they use them, but we didn't know if it changed performance in any way. We didn't have enough data.

■ Methods: Some of the methods that we do here is generally interviews, observation, performance records.

■ Generally - follow up 2-6 months after the session. And generally the follow-up, this moves us away from the classroom and back on-the-job. A good rule to follow is you follow-up anywhere from 2 to 6 months after the session to see if it's lasting. One of the problems with Level 3 and we'll also say

with Level 4 is that just because they haven't used it, it could be something in the environment that prevented them for perhaps their manager wouldn't let them. The other one is maybe there's great changes, but we found out there was also a recognition program that reinforced things people did. So, it's sometimes hard to have a cause and effect link from the training to what changed on-the-job.

Slide 54:   Level 4: Results

Our fourth level is results; what changes in employee or organizational performance are a direct result of the training? Certainly, very valuable, but again, hard to get information sometimes because it takes a lot of how do see this link between the two. As we said with Level 3. One of the areas of experience in my life where I was able to get to results and it was very gratifying is that we did a leadership program at Defense Logistic Agency where I worked. And people had a 5-day class, but during it they had to come up with projects. And they had to present them to the commander and if they liked them they had to implement them. One of the projects specifically was how to streamline the supply/delivery. And what they found out is that the supplies were in two different buildings and the team, because they learned about leadership and teamwork and making recommendations and presentations, recommended to the commander that they combine and put everything in one building. Seems like a pretty simple

solution, but there were some turf issues involved. And as a result

of that training that we were able to show absolute results. We

streamlined delivery to the customers by three days. So, that was

one of the times that I felt just great about using that level.

Slide 55:   Level 5: ROI (Return on Investment)

       Level 5 is the one that Jack Phillips has done so much work on,

and this is return on investment. And what we say is-- were the

benefits worth the cost? It's great data to justify a training class,

but again we're back to its very hard to measure. And the difficulty

with this is, again, with the commander when I did the results he

took one look at me and he knew just what was going to come out

of my mouth. And he said, Joan, please don't ask me to do ROI.

It's going to take me a long time. I've got to figure it all, and we're

swamped right now. So, I said okay we'll settle for results, but we'd

love to have the ROI, ideal, and probably not practical for every

single course, but still excellent to consider. So, what we want to…

Slide 56:   Poll

       We've run through the evaluation stages very, very quickly, but let's

take just a quick poll and find out if participants use course content

back on-the-job. Which level of evaluation would you probably

use?

- Level 1: Reaction

- Level 2: Learning

■ Level 3: Behavior

■ Level 4: Results

■ Level 5: ROI

Ah TS, they're too quick for us. They got it. Well you could, there could be… Learning, I've seen people are changing, we'll wait a minute here. Generally, it's Level 3. I can justify 2 and 4 also, because if you want course content back, which level, you could go for results and sometimes learning what people do do is they do the follow-up letter instead of in the classroom.

Slide 58:   Poll

Got one more poll. Which level of evaluation does management usually want to see? What would be their preference if they could. I see it. Okay. Okay, some interesting results TS. Most people, they would like results. They probably would love ROI, but are realistic about it. And even seeing that behavior is changed certainly depends on your own organization, what they may be looking for. So, TS, do you think you could wind up for us? We're getting to that magic time.

Slide 59:   Instructional Systems Design: ADDIE Model Resources

Presenter/TS: Yes, so just a quick rundown of our Instructional Systems Design. Again, if you remember that acronym ADDIE you're going to do just fine. Analyze, understand the performance issues, design those training blueprints, develop scripted lesson plan and the learning

materials. Implement, get it out there and evaluate. Let's see how effective the training was. And I believe you have some resources Joan.

Slide 60:   Resources

Presenter/Joan: Yes, we do. We'd like to encourage you if this is of interest to you, because we went very quickly and we covered a lot of information and as I said, we will have webinars on each of these topics in more depth, but this was the intro. However, also be sure to go to the California State Library. They have wonderful books, videos, academic articles. Don't forget the Safari Books that are online, and if you have downloaded this PowerPoint, it also will be posted to our Virtual Training Center. These links will be live. There's also some wonderful ROI material on our DPA website. And there's a DOE, Department of Energy, this is Federal, training program handbook; A Systematic Approach to Training. Absolutely comprehensive and it's fair, as we said, the ADDIE model originally came from. And let's see, I don't see any questions. Rhea said, thank you. Thank you Rhea. And how about a summary.

Slide 62:   Summary

Presenter/TS: In summary,

- ■ Using an ISD model is key to effective training – it's a road map
- ■ The ADDIE model is the most used and most well known
- ■ Don't skip the analysis phase

- Evaluation is key to justifying the continuation of your training program. I know that firsthand.

- It's all about improving job performance!! Again, the participants and not the trainer.

And with that…

Slide 63:	Thank You For Attending: Stay In Touch
Presenter/Joan:	And back to the organizational objectives as well. We want to thank you for attending. TS and I would both be very happy to stay in touch and here's our contact information.

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   ❑ Thank you for attending!

- You will receive an e-mail with evaluation questions and a link to your certificate of completion within one to three days.

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The webinar is now over.

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